CLAIMS

1. Method for indicating on a data medium a sector referenced by a binary word consisting of a number M of first bytes each comprising a number L of bits, characterized in that it includes steps of etching onto the data medium, locally at this sector, a succession of M second bytes each corresponding to a first byte, each second byte being equal to a vector having N components, each with a value of +1 or -1, such that $N = 2^L - 1$ and such that the scalar product of said vector with any other vector to which another second byte is equal, is at most equal to +1.

2. Method according to Claim 1, characterized in that one of the values +1 or -1 is etched by modifying an amplitude of a groove wobble period on the data medium.

3. Method according to Claim 1 or 2, characterized in that one of the values +1 or -1 is etched by multiplying by three an initial wobble frequency over a whole initial alternation period.

4. Method according to any one of the preceding claims, characterized in that a third byte, called a synchronization byte, is added at the head of the succession of M second bytes, said synchronization byte consisting of a maximum length binary sequence of P bits with P greater than N.

5. Method according to any one of the preceding claims, characterized in that the component values of each of 2^{L-1} first vectors result from a different circular permutation over the same first maximum length binary sequence of N values and in that the component values of each of 2^{L-1} other vectors are of opposite sign to the component values of a different one of the 2^{L-1} first vectors.

6. Method according to Claim 4, characterized in that M = 12, L = 4 and P = 63.

7. Method according to Claim 6, characterized in that the component values of each of eight first vectors result from a different circular permutation over the same first maximum length binary sequence of fifteen values and in that the component values of each of eight other vectors are of opposite sign to the component values of a different one of the eight first vectors.

8. Data medium (45) comprising a plurality of sectors for recording computer data, characterized in that it includes, locally on each sector referenced by a binary word formed of a number M of first bytes each comprising a number L of bits, a succession of M second bytes each corresponding to a first byte, each second byte being equal to a vector of N components, each with a value of +1 or -1, such that $N = 2^L - 1$ and such that the scalar product of said vector with any other vector to which another second byte is equal, is at most equal to +1.

9. Data medium according to Claim 8, characterized in that one of the values +1 or -1 is etched in the form of a modified amplitude of a groove (47) wobble period on the data medium.

10. Data medium according to Claim 8 or 9, characterized in that one of the values +1 or -1 is etched in the form of three alternations of frequency three times greater than an initial groove (47) wobble frequency on the data medium, added onto a wobble period of said groove.

11. Data medium according to any one of the preceding claims, characterized in that a third byte, called a synchronization byte, is located at the head of the succession of M second bytes, said

synchronization byte consisting of a maximum length binary sequence of P bits with P greater than N.

12. Data medium according to any one of the preceding claims, characterized in that the component values of each of 2^{L-1} first vectors result from a different circular permutation over the same first maximum length binary sequence of N values and in that the component values of each of 2^{L-1} other vectors are of opposite sign to the component values of the different one of 2^{L-1} first vectors.

13. Data medium according to Claim 11, characterized in that M = 12, L = 4 and P = 63.

14. Data medium according to Claim 13, characterized in that the component values of each of eight first vectors result from a different circular permutation over the same first maximum length binary sequence of fifteen values and in that the component values of each of eight other vectors are of opposite sign to the component values of a different one of the eight first vectors.

15. Integrated circuit (53) for detecting on a data medium (45) a recording sector referenced by a binary word (56), characterized in that this comprises:

- a correspondence table (7) that matches to a succession of M first bytes forming a binary word (56) each with a number L of bits a succession of M second bytes each corresponding to a first byte, each second byte being equal to a vector of N components, each with a value of +1 or -1, such that $N = 2^L - 1$ and such that the scalar product of said vector with any other vector to which another second byte is equal, is at most equal to +1.

- a logic unit (57) constructed for forming the scalar product of a first vector of the correspondence table with a second vector originating from a signal (58) received at the input of the integrated circuit

(53) and arranged to detect that the second vector matches a first byte when the scalar product of the first and second vector is substantially greater than +1.

16. Integrated circuit according to Claim 15, characterized in that the logic unit (57) is arranged to detect a synchronization byte from the signal (58).